

IN THE CLAIMS:

Please cancel original claims 1-35 and add new claims 36-68 as follows:

36. (New) Fluid processing apparatus for use in an elongate passage, the apparatus comprising a plurality of means for applying ultrasonic energy to fluid within the passage provided at different axial positions along the elongate passage, wherein axially adjacent means for applying ultrasonic energy are radially non-parallel and radially non-opposing.

37. (New) Apparatus according to claim 36, wherein axially adjacent means for applying ultrasonic energy are relatively radially displaced by an angle between is between 0° and 90°

38. (New) Apparatus according to claim 37, wherein the angle is from 30° to 60°.

39. (New) Apparatus according to claim 38, wherein the angle is substantially 45°.

40. (New) Apparatus according to claim 36, which comprises five or more means for applying ultrasonic energy contained within the same elongate passage.

41. (New) Apparatus according to claim 36, wherein alternate means for applying ultrasonic energy are radially aligned.

42. (New) Apparatus according to claim 36, which comprises five means for applying ultrasonic energy, in which the means for applying ultrasonic energy are radially symmetrically disposed either side of a line parallel with the longitudinal axis of the elongate passage.

43. (New) Apparatus according to claim 42, wherein the first, third and fifth means for applying ultrasonic energy are substantially in radial alignment disposed on one side of the line, and the second and fourth means for applying

ultrasonic energy are substantially in radial alignment disposed by a substantially equal amount on the other side of the line.

44. Apparatus according to claim 36, wherein axially adjacent means for applying ultrasonic energy are axially spaced by an amount from 30 to 40mm.

45. (New) Apparatus according to claim 36, wherein each means for applying ultrasonic energy may be activated independently.

46. (New) Apparatus according to claim 36, wherein each means for applying ultrasonic energy preferably comprises an operating member connected to a vibration member, the operating member being connected to a source of ultrasonic energy.

47. (New) Apparatus according to claim 46, wherein the means for applying ultrasonic energy has an inner passage through which fluid flowing through the apparatus passes.

48. (New) Apparatus according to claim 47, wherein an inner surface of the inner passage is arranged to vibrate radially.

49. (New) Apparatus according to claim 47, wherein the longitudinal axis of the inner passage of each means for applying ultrasonic energy is substantially coincident with the longitudinal axis of the elongate passage.

50. (New) Apparatus according to claim 36, which further comprises means for constraining flow of fluid towards the longitudinal axis of the elongate passage.

51. (New) Apparatus according to claim 50, wherein said means for constraining flow of fluid comprises a funnelling device.

52. (New) Apparatus according to claim 51, wherein said funnelling device is operative to reduce the cross-sectional area through which fluid flows by at least a factor of 4.

53. (New) Apparatus according to claim 52, wherein said funnelling device is operative to reduce the cross-sectional area through which fluid flows by at least a factor of 8.

54. (New) Apparatus according to claim 51, wherein the funnelling device is located within the elongate passage upstream of the one or more means for applying ultrasonic energy.

55. (New) Apparatus according to claim 36, wherein each means for applying ultrasonic energy comprises a vibration member having an inner passage.

56. (New) Apparatus according to claim 36, wherein the means for applying ultrasonic energy comprises an extender element for projecting an operating member into said elongate passage, said apparatus further comprising flushing means for flushing detritus from said extender element.

57. (New) Fluid processing apparatus for use in an elongate passage, the apparatus comprising a means for applying ultrasonic energy to fluid within the passage, said means for applying ultrasonic energy comprising an extender element for projecting an operating member into said elongate passage, said apparatus further comprising flushing means for directing cleaning media for flushing detritus from said extender element.

58. (New) Apparatus according to claim 57, wherein said flushing means comprises one or more nozzles provided at or adjacent said extender element.

59. (New) Apparatus according to claim 58, wherein the one or more nozzles are housed in a wall of a chamber through which the extender element projects.

60. (New) Apparatus according to claim 56, wherein the apparatus further comprises a plurality of means for applying ultrasonic energy arranged with their operating members along a common longitudinal axis, adjacent extender elements being angularly offset with respect to one another.

61. (New) Apparatus according to claim 60, wherein the plurality of means for applying ultrasonic energy are arranged in a "V" formation.

62. (New) Apparatus according to claim 58, wherein the nozzles incorporate actuated valves.

63. (New) Apparatus according to claim 57, wherein supply of fluid to the nozzles is controlled automatically, in response to a draw in power from the means for applying ultrasonic energy.

64. (New) Fluid processing apparatus for use in an elongate passage, the apparatus comprising a means for applying ultrasonic energy to fluid within the passage, said apparatus further comprising flushing means for flushing detritus from said apparatus, said flushing means comprising a flushing nozzle for directing flushing media towards an outer surface of a substantially conical surface provided within the passage.

65. (New) Apparatus according to claim 64, wherein the outer conical surface is formed by an outer surface of a funnelling device provided in the passage.

66. (New) A method of treating fluids comprising placing a fluid processing apparatus into an elongate passage, and passing the fluid through the elongate passage;

wherein said fluid processing apparatus includes a plurality of means for applying ultrasonic energy to fluid within the passage provided at different axial positions along the elongate passage, axially adjacent means for applying ultrasonic energy being radially non-parallel and radially non-opposing.

67. (New) A method according to claim 66 wherein the fluid is sewage sludge.

68. (New) A method according to claim 66 herein the elongate passage is aligned substantially vertically.